



Mincom Portable Coaxial Recorder

highest performance per cubic foot

Revere-Mincom Division **3M**
COMPANY

Mincom's PC-500

This beautifully designed and superbly engineered compact 1.5 MHz recorder* is telemetry's most advanced solution for the problem of extreme wideband multi-channel performance in a limited package. Intended primarily for data acquisition in any type of field installation, it is equal to all and superior to many standard-rack wideband recorders now in similar use — even when small size (less than four cubic feet) is not a requirement. □ Mincom's PC-500 Coaxial Reel Recorder is compatible with all standard playback systems, including the Mincom TIDAX and TICOR II. By generating a standard 200-kHz reference signal during the record process, advantage can be taken of TICOR II's unequalled time comparison between events ($\pm 0.5 \mu\text{sec}$ compared to reference track) when reproduced. □ The PC-500 was designed with the problems of the field operator in mind. An easily attached slide mount enables the system to be housed in a standard rack. The recorder is quiet, and RFI-shielded. □ Quick-look monitoring is provided by two nominally equalized playback channels, switchable to any of the fourteen record tracks, enabling the operator to check signal quality and to observe the recorder's overall performance. □ For shipboard, van, airborne and other demanding and unusual installations, the PC-500 is the most efficient and versatile system on the market today.

Features

*400 Hz to 1.5 MHz bandwidth (2 MHz optional)

Seven or fourteen record tracks

Two reproduce/monitor channels

10½, 12½ or 14-inch NAB standard or precision reels

Compact package

Seven speeds, 1½ to 120 ips, in three ranges

Push-button mode and speed controls. No belt changes

Completely solid state modular construction

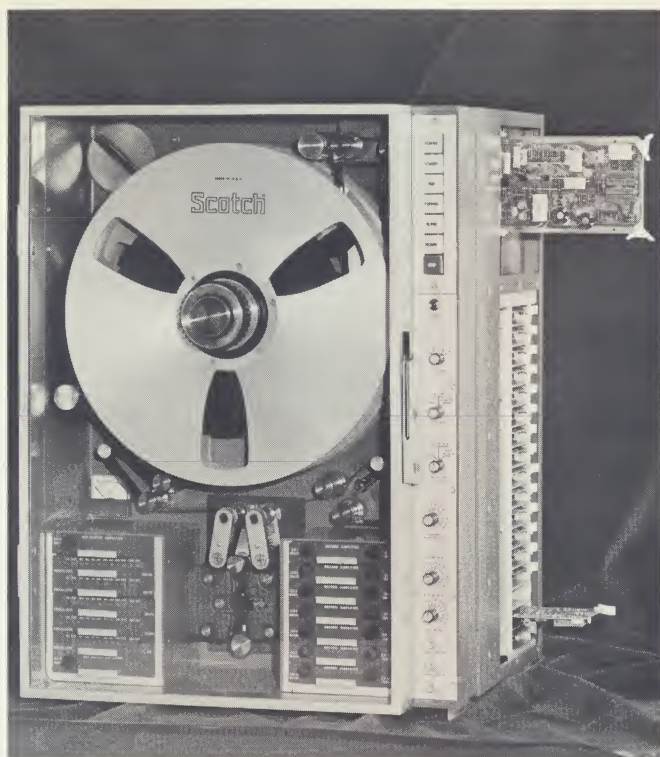
Longer recording time: From 15 minutes at 120 ips to 8 hours at 3¾ or 16 hours at 1½

Dynamic braking, with mechanical fail-safe braking

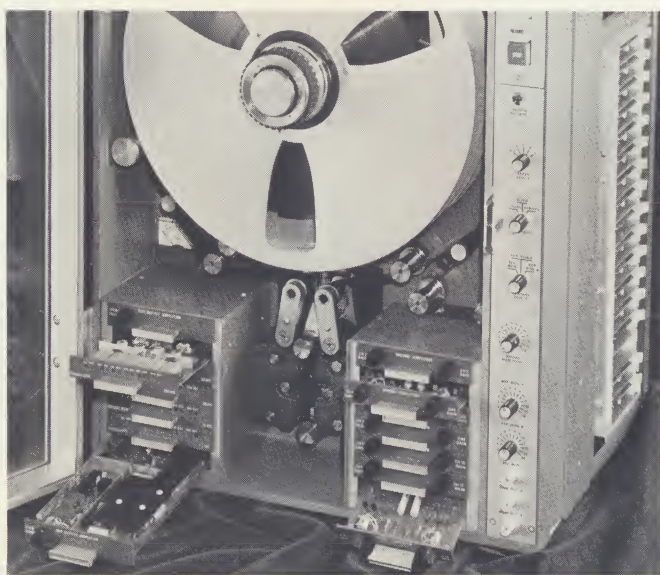
Mincom Isoloop® provides positive tape-to-head contact, isolates tight loop from common sources of flutter

Optional remote control

Many add-on capabilities available



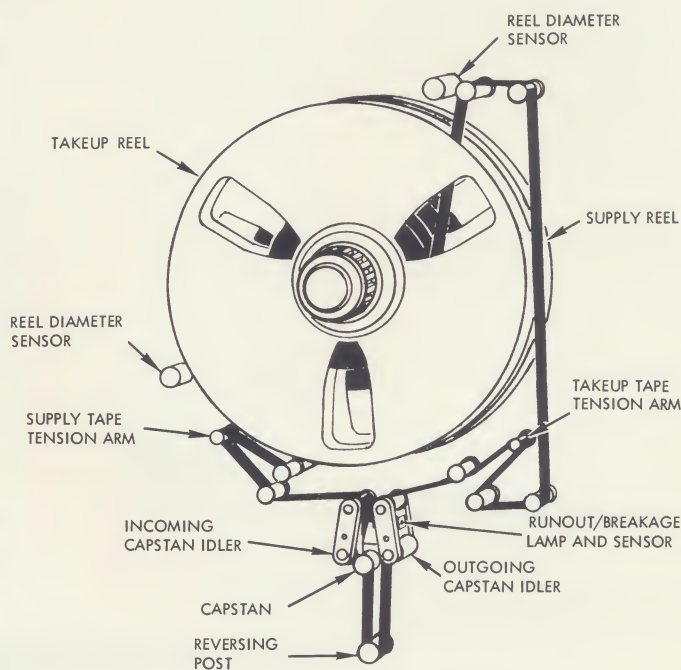
All Solid State modular assembly is maintained throughout Mincom's PC-500. In photograph above, system is shown with the transport speed-control circuit extended (top) and a record driver PC card extended (below). On the front control panel are shown, from top, back-lighted mode push-buttons for Power, Standby, Run, Fast Forward, Rewind, Record and Stop. Below the mode controls: Tape tension release button, speed selector switch, local and remote control switch, record and reproduce monitor switches. Signal electronics shown in illustration below are (left) two reproduce output amplifiers and five speed equalizers; (right):



Seven dual-record amplifiers handling fourteen 1.5-MHz channels. Above the speed equalizer bank a VU meter provides signal level monitoring for any channel record or reproduce signal.

The Tape Transport uses a new Mincom basic design for the most precise control of coaxial reel movement with respect to the tape's geometrical path, tension and rate. All transport circuitry is solid-state. Supply and takeup reels are stack-mounted on a single hub, and are coaxially driven by individual motors which rotate their respective reels through an approximate five-to-one ratio to attain sufficient torque for positive control of full tape reels.

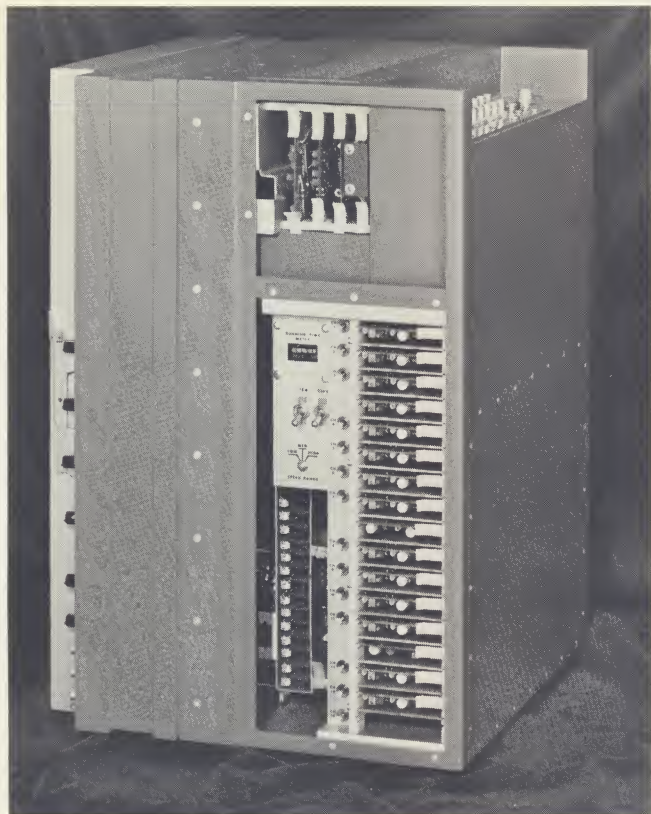
Both reels are equipped with light-beam diameter-sensors which send transfer, stop and/or reversing commands to the recorder's function control subsystem in response to a preset tape diameter indicating quantity on the reels.



The supply and takeup sensor arms (see diagram) function as controlling inputs to the reel servo assemblies.

In the record and reproduce monitor modes, that portion of the tape passing over the heads is isolated and held in constant optimum operating tension by Mincom's exclusive Isoloop drive. Isoloop has been well known since 1957 for its reliable performance in maintaining head-to-tape contact.

The transport utilizes the simple and reliable high-performance concept of Mincom's exclusive DC Top Plate to provide the same dependable simplicity in the coaxial configuration.



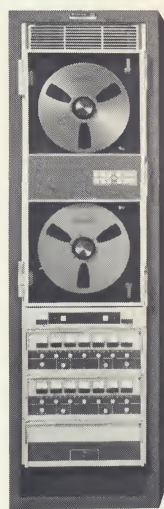
Accessibility of certain-important connections, major subsystems and adjustments is shown in illustration at left. The connector panel is recessed in the recorder's top surface and includes connections for signal input (14 channels), remote control, control track, reproduce pre-amplified output (14 channels), AC line power, RFI filter and record/reproduce monitoring jacks.

In the upper side panel are shown the transport speed control circuits. In the panel below, record driver boards are at the right. At the left, from top to bottom: Running time meter; two voltage selector switches for various AC inputs; a three-position speed-range selector, and reproduce pre-amplifiers. Extending from top to bottom of this panel are bias adjustment potentiometers for fourteen record channels.

Optional Circuitry for the Portable Coaxial Recorder includes a remote control accessory enabling the operator to activate the Record, Run, Rewind, Fast Forward and Stop modes.

Maintenance and reliability: The recorder's assemblies and circuits are designed for extended service under the varying conditions normally encountered in the field.

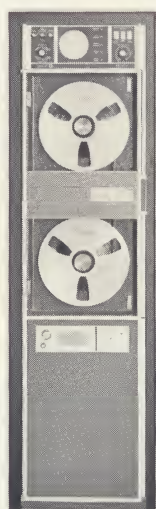
Mincom—Leader in Instrumentation Recorders



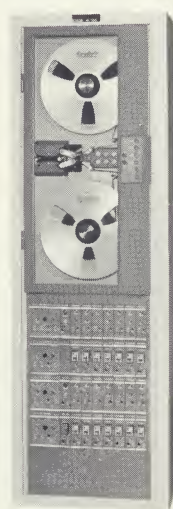
TICOR II



MODEL 30



PD-1000

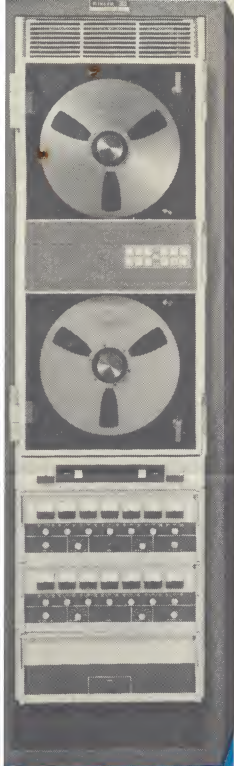


H-100

TICOR II, reducing time displacement error to $\pm 0.5 \mu\text{sec}$, increases data analysis capability by a factor of 1000. Model 30, 2 MHz, provides several optional direct and FM data types in a single rack. PD-1000 records digital data in a parallel format. H-100 is a general-purpose, intermediate-range recorder: Direct 100 Hz to 300 kHz, FM DC- 20 kHz.

Revere-Mincom Division **3M**
COMPANY

300 SOUTH LEWIS ROAD, CAMARILLO, CALIFORNIA 93010
Field Sales and Service Engineers throughout the United States and in major foreign markets.



...*We* are pleased to enclose this current MINCOM product data. Thank you for your interest. Should you require additional information, please ask for it. We'll do our best to answer your questions by mail or personal call. Meanwhile, if you would like to be kept informed of MINCOM's progress, mail attached card.

Please keep me informed on MINCOM products.

The particular application I have in mind is :

NAME

TITLE

 DIV. OR DEPT.

COMPANY

ADDRESS

CITY

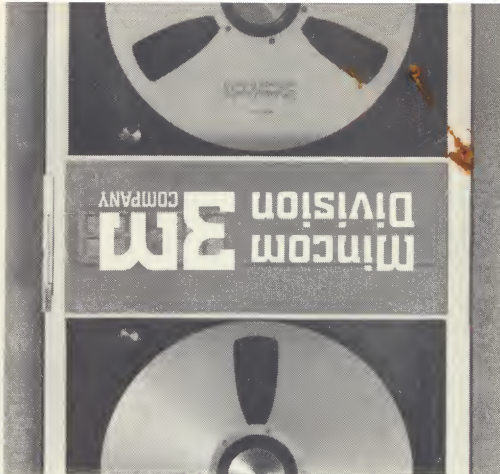
 STATE

 ZIP CODE

PHONE

 EXT.

*member
of your
answer
in*



FIRST CLASS
PERMIT NO. 40
CAMARILLO,
CALIFORNIA

BUSINESS REPLY MAIL

No postage stamp necessary if mailed in the United States.

POSTAGE WILL BE PAID BY

MINCOM DIVISION
Minnesota Mining and Manufacturing Co.
300 South Lewis Road
Camarillo, California 93010

